FORM PTO 1449 (<i>modified</i>) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY DOCKET NO. 03500.018109	APPLICATION NO. 10/553,221				
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)			APPLICANT Tetsuya Yano et al.					
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U.S. PATENT DOCUMENTS								
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/HJL/		4,358,388	11/09/82	Daniel et al.	252	62.54		
/HJL/		4,654,267	03/31/87	Ugelstad	428	407		
/HJL/		4,774,265	09/27/88	Ugelstad	521	55		
/HJL/		5,200,332	04/06/93	Yamane et al.	435	135	· 	
/HJL/		2006/0211100 A1	09/21/06	Kenmoku et al.	435	135		
/HJL/		4,393,167	07/12/83	Holmes et al.	525	64	•	
/HJL/		4,477,654	10/16/84	Holmes et al.	528	361		
/HJL/		4,876,331	10/24/89	Doi	528	361		
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/HJL/	wo	2005/121204 A2	12/22/05	International				
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/HJL/	wo	2004/097417 A1	11/11/04	International				
/HJL/	wo	2005/121205 A1	12/22/05	International	,		*	
/HJL/	wo	2005/121208 A1	12/22/05	International			•	
		OTHER	DOCUMENT(S)	(Including Author, Title, Date, Pertinent Pages, Etc.)				
/HJL/		Bruce A. Ramsay et al., "Effect of Nitrogen Limitation on Long-Side-Chain Poly -β-Hydroxyalkanoate Synthesis by <i>Pseudomonas resinovarans</i> ," 58(2) <u>Appl. Environ. Microbiol.</u> 744-46 (1992).						
/HJL/		Hideki Abe et al., "Biosynthesis from Gluconate of a Random Copolyester Consisting of 3- Hydroxybutyrate and Medium-Chain-Length 3-Hydroxyalkanoates by <i>Pseudomonas</i> sp. 61- 3," 16(3) Int. J. Biol. Macromol. 115-19 (June 1994).						
/HJL/		Y.B. Kim et al., "Preparation and Characterization of Poly(β-Hydroxyalkanoates) Obtained from Pseudomonas oleovorans with Mixtures of 5-Phenylvaleric Acid and n-Alkanoic Acids," 24 Macromol. 5256-60 (1991).						
/HJL/	-	Katharina Fritzsche et al., "An Unusual Bacterial Polyester with a Phenyl Pendant Group," 191 Macromol. Chem. 1957-65 (1990).						

DATE CONSIDERED

01/11/2008

EXAMINER

/Herbert Lilling/ (01/11/2008)

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DATE CONSIDERED

01/11/2008

/Herbert Lilling/ (01/11/2008)

EXAMINER

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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DATE CONSIDERED

01/11/2008

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DATE CONSIDERED

01/11/2008

EXAMINER

/Herbert Lilling/ (01/11/2008)

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/H	JL/		5,051,261	09/24/91	McGinity et al.	424	464			
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		wo	94/10982 A1	05/26/94	International			Abstract		
		EP	0 945 137 A1	09/29/99	Europe					
	-	JP	11-199514	07/27/99	Japan			Abstract		
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/HJI	L/	_	Katharina Fritzsche et al., "Production of Unsaturated Polyesters by <i>Pseudomonas oleovorans</i> ," 12 Int. J. Macromol. 85-91 (April 1990).							
			Won Ho Park et al., "Epoxidation of Bacterial Polyesters with Unsaturated Side Chains. I. Production and Epoxidation of Polyesters from 10-Undecanoic Acid," 31 Macromol. 1480-86 (1998).							
			Yasuo Takagi et al., "Biosynthesis of Polyhydroxyalkanoate with a Thiophenoxy Side Groups Obtained from <i>Pseudomonas putida</i> ," 32 <u>Macromol.</u> 8315-18 (1999).							
/t	IJL/	,	Bernd H.A. Rehm et al., "A New Metabolic Link Between Fatty Acid <i>de Novo</i> Synthesis and Polyhydroxyalkanoic Acid Synthesis," 273(37) J. Biol. Chem. 24044-51 (1998).							
EXAMIN	ER		/Herbert Lilling/ (01/11/2008) DATE CONSIDERED 01/11/2008							

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	JP	2-124814	05/14/90		Japan			Abstract
	JP	4-321622	11/11/92		Japan			Abstract
	JP	4-208217	07/29/92		Japan			Abstract
/HJL/	JP	61-43119	03/01/86		Japan			Abstract
		OTHER	R DOCUMENT(S)	(Including Author,	Title, Date, Pertinent Pages, Etc.)			
/HJL/		Masao Yamaguchi et al., "Oxidation of ω -(Benzoyloxy)alkanols with an Oxoaminium Salt," 55 J. Org. Chem. 1490-92 (1990).						
		Hiroki Okada et al., "Biodegradable Microspheres in Drug Delivery," 12(1) <u>Critical Reviews in Therapeutic Drug Carrier Systems</u> 1-9 (1995).						
		G. Spehnlehauer et al., "Formation and Characterization of Cisplatin Loaded Poly(<i>d,l</i> -Lactide) Microspheres for Chemoemobilization," 75(8) <u>J. Pharma. Sci.</u> 750-55 (August 1986).						
/HJL/		Yuiji Yamamoto et al., "An Experimental Study on the Releasing Rate of Poly (3-Hydroxybutyrate) Microspheres," 7(5) <u>DDS</u> 367-71 (1992).						
EXAMINER /Herbert Lilling/ (01/11/2008)			DATE CONSIDERED 01/11/2008					

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	JP	61-63613	04/01/86	Japan			Abstract
	JP	8-151321	06/11/86	Japan			Abstract
	JP	2-503315	10/11/90	Japan			Abstract
	EP	0 586 238 A2	03/09/94	Europe			
/HJL/	EP	0 765 660 A2	04/02/97	Europe			-
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/HJL/		6,167,313	12/26/00	Gray et al.	607	103			
/HJL/		6,565,887 B1	05/20/03	Gray et al.	424	489			
/HJL/		2003/0194443 A1	10/16/03	Yano et al.	424	497			
	FOREIGN PATENT DOCUMENTS								
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/HJL/	EP	1 275 378 A2	01/15/03	Europe					
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		OTHER	R DOCUMENT(S)	(Including Author, Title, Date, Pertinent Pages, Etc.)					
/HJL/	-	Urs O. Häfeli et al., "Effective Targeting of Magnetic Radioactive ⁹⁰ Y-Microspheres to Tumor Cells by an Externally Applied Magnetic Field. Preliminary <i>In Vitro</i> and <i>In Vivo</i> Results," 22(2) Nucl. Med. Biol. 147-55 (1995).							
/HJL/	*	S.A. Gómez-Lopera et al., "Synthesis and Characterization of Spherical Magnetite/Biodegradable Polymer Composite Particles," 240 <u>J. Colloid. Interface Sci.</u> 40-47 (2001).							
EXAMINER	/Herl	bert Lilling/ (01/11/2008)		DATE CONSIDERED 01/11/2008					

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